

## CLAIMS

1 1-32. (canceled)

1 33. (new). A network device for a communication network, the network device comprising:

2 (a) a database table adapted to:

3 (1) store one or more sets of one or more parameters, each set corresponding to a  
4 different identifier; and

5 (2) allow updating of a first set of one or more parameters, the first set  
6 corresponding to a first identifier, wherein the updating is based on data packets received from a  
7 first transmitter corresponding to the first identifier; and

8 (b) a receiver adapted to:

9 (1) receive a first data packet from the first transmitter, the first data packet  
10 comprising a header and a payload;

11 (2) receive a first auxiliary coding corresponding to the first data packet, wherein:  
12 the first auxiliary coding identifies the first identifier;

13 (3) recover the first identifier from the first auxiliary coding;

14 (4) retrieve the first set of one or more parameters from the database table based  
15 on the first identifier;

16 (5) process at least a portion of the first data packet based on the first set of one or  
17 more parameters;

18 (6) update the first set of one or more parameters based on the processing; and

19 (7) provide to the database table, for storage, the updated first set of one or more  
20 parameters.

1 34. (new) The network device of claim 33, wherein the communication network is a HomePNA  
2 network.

1 35. (new) The network device of claim 33, wherein:

2 the first data packet further comprises a training preamble;

3 the first auxiliary coding is inserted within the training preamble of the first data packet.

1 36. (new) The network device of claim 33, wherein:  
2       the first data packet further comprises a training preamble;  
3       the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by  
4 frequency division;  
5       the first auxiliary coding is encoded at a frequency different from a frequency for the first  
6 data packet;  
7       receipt of the first auxiliary coding overlaps in time with receipt of the training preamble  
8 of the first data packet.

1 37. (new) The network device of claim 33, wherein the first auxiliary coding is received before  
2 the first data packet is received.

1 38. (new) The network device of claim 33, further comprising a transmitter adapted to:  
2       (1) generate a second auxiliary coding for transmittal with a second data packet, wherein:  
3           the second auxiliary coding identifies a second identifier;  
4           the second identifier identifies the transmitter; and  
5           the second auxiliary coding is different from the second data packet;  
6       (2) transmit the second auxiliary coding and the second data packet to a second network  
7 device.

1 39. (new) The network device of claim 38, wherein:  
2       the transmitter comprises a first RF front end; and  
3       the transmitter is adapted to transmit both the second auxiliary coding and the second  
4 data packet using the first RF front end.

1 40. (new) The network device of claim 38, wherein:  
2       the transmitter comprises a first RF front end and a second RF front end;  
3       the transmitter is adapted to transmit the second auxiliary coding using the first RF front  
4 end; and  
5       the transmitter is adapted to transmit the second data packet using the second RF front  
6 end.

1    41. (new) The network device of claim 33, wherein the first auxiliary coding comprises five or  
2    fewer symbols.

1    42. (new) The network device of claim 33, wherein the first auxiliary coding comprises five or  
2    fewer bits.

1    43. (new) The network device of claim 33, wherein the first identifier is a station identifier for  
2    the first transmitter.

1    44. (new) The network device of claim 33, wherein:  
2        the first data packet header includes a source address for the first transmitter; and  
3        the first identifier is not the same as the source address for the first transmitter.

1    45. (new) The network device of claim 33, wherein the first set of one or more parameters  
2    comprises at least one of a receiving-equalizer start value, a timing-recovery start value, an  
3    automatic-gain-controller start value, and an echo-canceller start value.

1    46. (new) The network device of claim 33, wherein the updating is based on moving averages,  
2    from past data packets received from the first transmitter, of one or more of a receiving-equalizer  
3    value, a timing-recovery value, an automatic-gain-controller value, and an echo-canceller value.

1    47. (new) The network device of claim 33, wherein:  
2        the first auxiliary coding is received as a first set of pulses received substantially  
3        immediately before the first data packet; and  
4        the first identifier is encoded in the first set of pulses by variable timing intervals between  
5        adjacent pulses in the first set of pulses.

1    48. (new) The network device of claim 33, wherein the database table is further adapted to store  
2    the first identifier corresponding to each set of one or more parameters.

1 49. (new) A method for a network device for a communication network, wherein the network  
2 device comprises a database table and a receiver, the method comprising:  
3 (1) storing a first set of one or more parameters in the database table, the first set  
4 corresponding a first identifier;  
5 (2) receiving a first data packet comprising a header and a payload from a first  
6 transmitter;  
7 (3) receiving a first auxiliary coding corresponding to the first data packet, wherein:  
8 the first auxiliary coding identifies the first identifier;  
9 (4) recovering the first identifier from the first auxiliary coding;  
10 (5) retrieving the first set of one or more parameters from the database table based on the  
11 first identifier;  
12 (6) processing at least a portion of the first data packet based on the first set of one or  
13 more parameters;  
14 (7) updating the first set of one or more parameters based on the processing; and  
15 (8) providing to the database table, for storage, the updated first set of one or more  
16 parameters.

1 50. (new) The method of claim 49, wherein the communication network is a HomePNA network.

1 51. (new) The method of claim 49, wherein:  
2 the first data packet further comprises a training preamble;  
3 the first auxiliary coding is inserted within the training preamble of the first data packet.

1 52. (new) The method of claim 49, wherein:  
2 the first data packet further comprises a training preamble;  
3 the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by  
4 frequency division;  
5 the first auxiliary coding is encoded at a frequency different from a frequency for the first  
6 data packet;  
7 receipt of the first auxiliary coding overlaps in time with receipt of the training preamble  
8 of the first data packet.

1 53. (new) The method of claim 49, wherein the first auxiliary coding is received before the first  
2 data packet is received.

1 54. (new) The method of claim 49, where the network device further comprises a transmitter, the  
2 method further comprising:

3 (1) generating a second auxiliary coding for transmittal with a second data packet,  
4 wherein:

5 the second auxiliary coding identifies a second identifier;  
6 the second identifier identifies the transmitter; and  
7 the second auxiliary coding is different from the second data packet;

8 (2) transmitting the second auxiliary coding and the second data packet to a second  
9 network device.

1 55. (new) The method of claim 54, wherein:

2 the transmitter comprises a first RF front end; and  
3 the method comprises transmitting both the second auxiliary coding and the second data  
4 packet using the first RF front end.

1 56. (new) The method of claim 54, wherein:

2 the transmitter comprises a first RF front end and a second RF front end; and  
3 the method comprises:  
4 transmitting the second auxiliary coding using the first RF front end; and  
5 transmitting the second data packet using the second RF front end.

1 57. (new) The method of claim 49, wherein the first auxiliary coding comprises five or fewer  
2 symbols.

1 58. (new) The method of claim 49, wherein the first auxiliary coding comprises five or fewer  
2 bits.

1       59. (new) The method of claim 49, wherein the first identifier is a station identifier for the first  
2       transmitter.

1       60. (new) The method of claim 49, wherein:  
2           the first data packet header includes a source address for the first transmitter; and  
3           the first identifier is not the same as the source address for the first transmitter.

1       61. (new) The method of claim 49, wherein the first set of one or more parameters comprises at  
2       least one of a receiving-equalizer start value, a timing-recovery start value, an automatic-gain-  
3       controller start value, and an echo-canceller start value.

1       62. (new) The method of claim 49, wherein the updating is based on moving averages, from past  
2       data packets received from the first transmitter, of one or more of a receiving-equalizer value, a  
3       timing-recovery value, an automatic-gain-controller value, and an echo-canceller value.

1       63. (new) The method of claim 49, wherein:  
2           the first auxiliary coding is received as a first set of pulses received substantially  
3       immediately before the first data packet; and  
4           the first identifier is encoded in the first set of pulses by variable timing intervals between  
5       adjacent pulses in the first set of pulses.

1       64. (new) The method of claim 49, further comprising storing the first identifier in the database  
2       table.